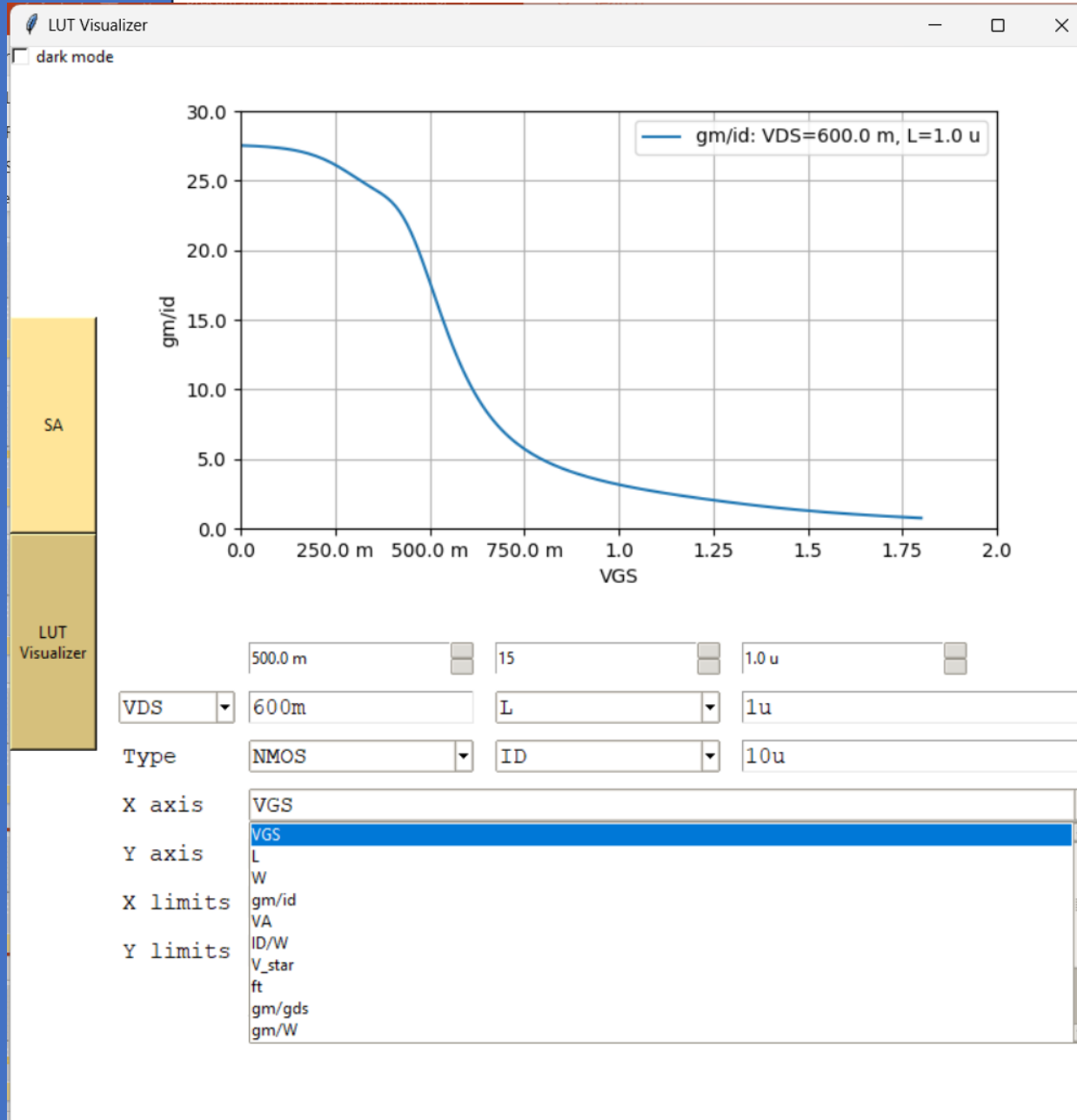
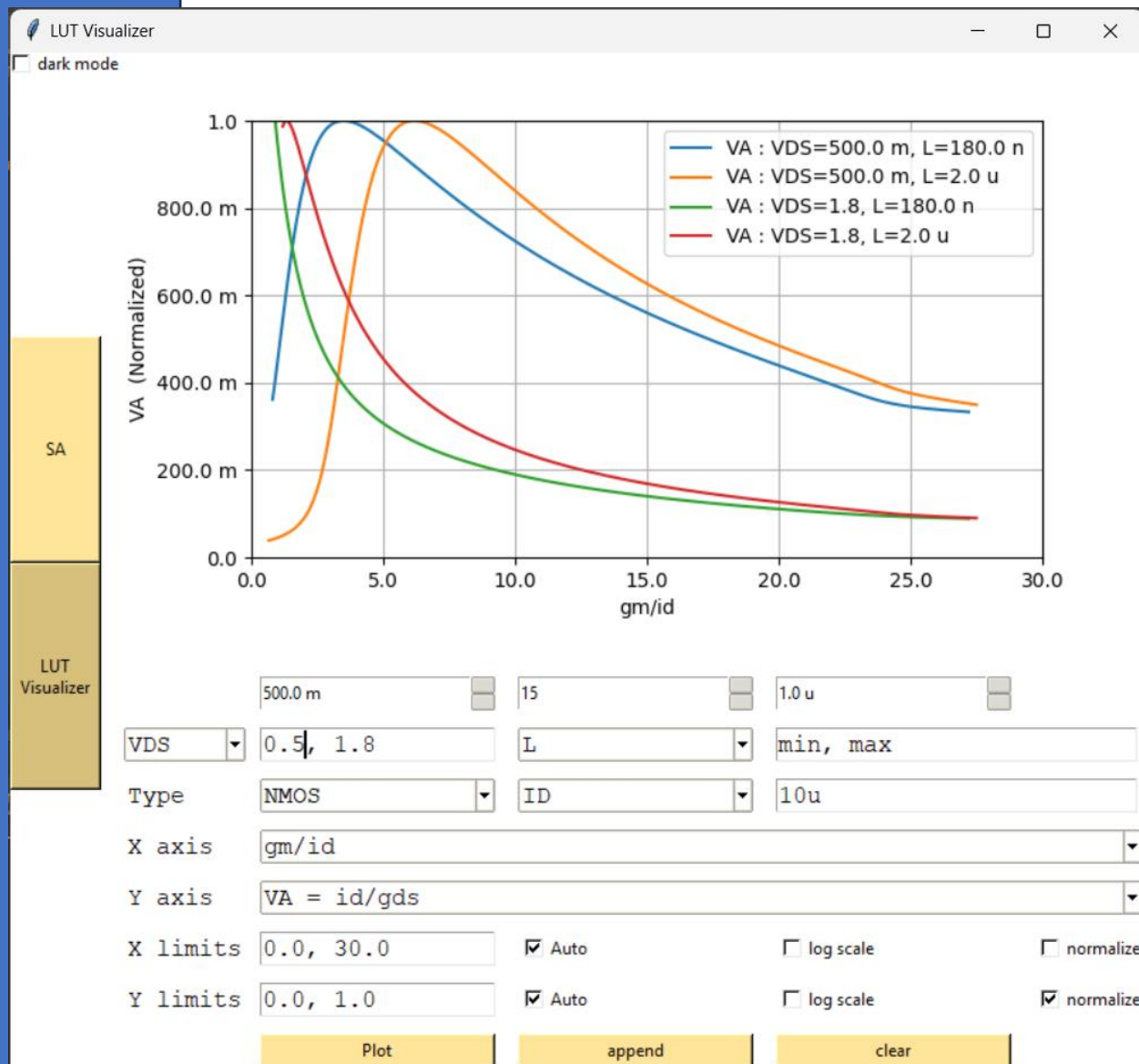


LUT Visualizer (for intuitiveness)



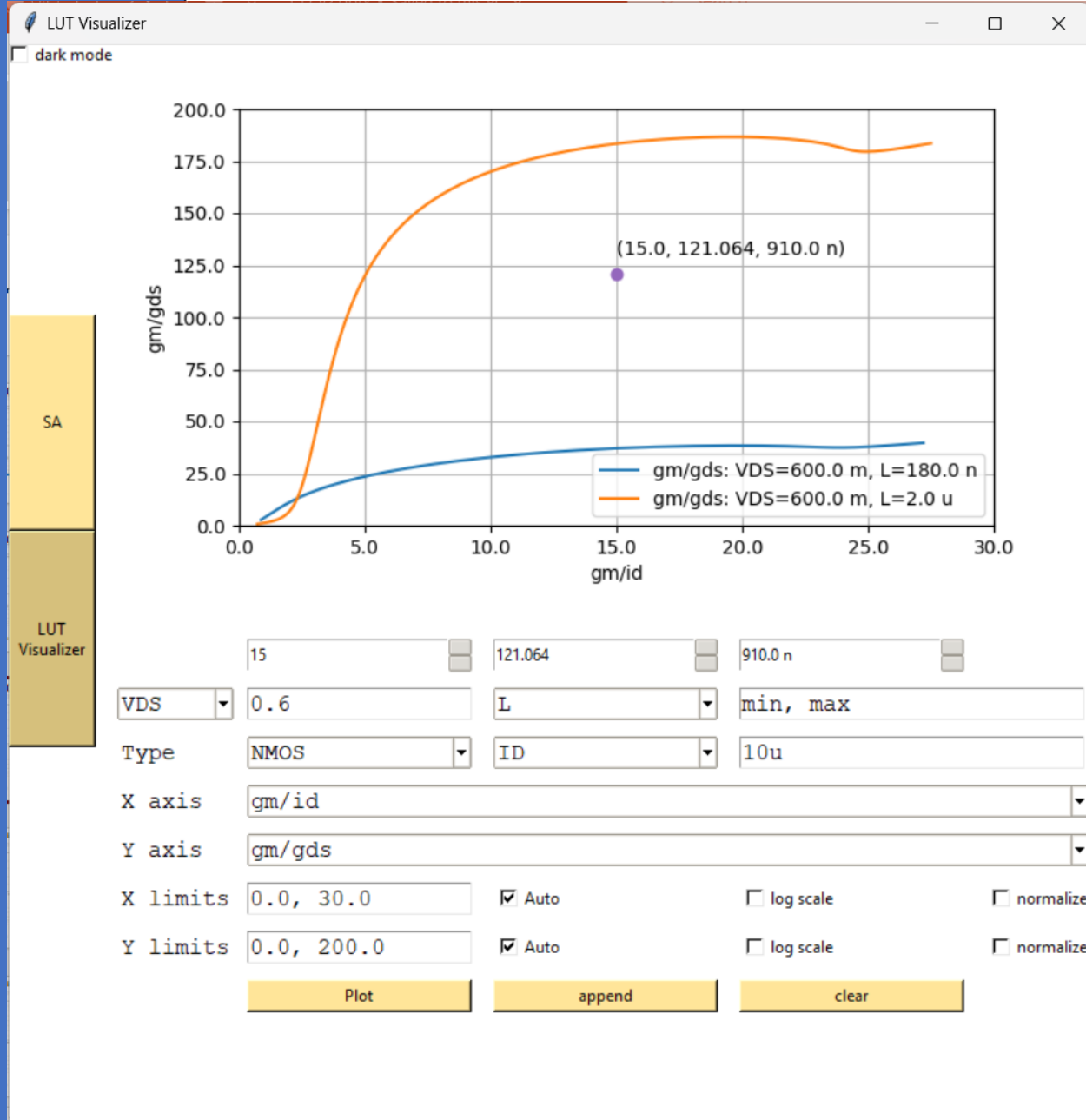
☐ You can plot whatever you want
vs whatever you want

LUT Visualizer (for intuitiveness)



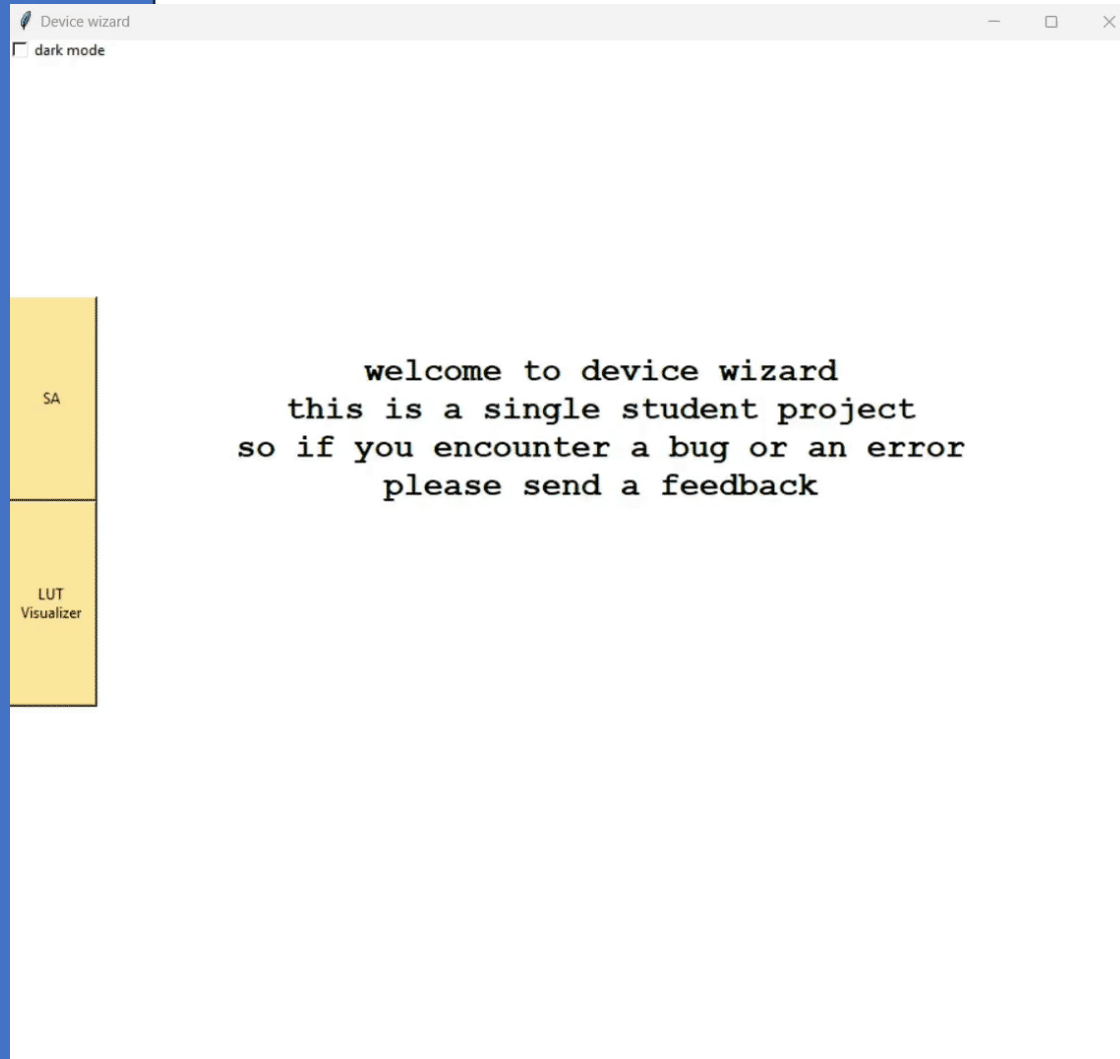
- ☐ You can select from the pop-up menu
- ☐ Or type any expression you want
- ☐ You can also plot multiple sweeps, normalize, and change the limits of the plot

LUT Visualizer (for intuitiveness)



☐ You can also search for a point

LUT Visualizer (for intuitiveness)



❑ Example (MATLAB Version)

I_D Vs V_{GS} (Long vs short vs square law)

[GD link of the Tool](#)

Sizing assistant

The screenshot shows a window titled "Sizing assistant" with a "dark mode" toggle. The window is divided into two main sections. The top section contains input fields for "NMOS" with the following values: ID = 10u, cdd = 1.0 f, Gm/(CDD + 1p) = 100M, and VDS = 600m. Below these is a yellow "Run" button. The bottom section displays a list of calculated parameters under the "SA" (Sizing Assistant) tab, with a "LUT Visualizer" tab also visible. The parameters and their values are:

ID	= 10.0 u
L	= 385.318 n
W	= 789.578 n
ID/W	= 12.665
VGS	= 656.331 m
VDS	= 600.0 m
gm/id	= 10.091
V_star	= 198.191 m
ft	= 6.157 G
gm/gds	= 74.579
VA	= 7.39
gm	= 101.238 u
gmb	= 26.677 u
gds	= 1.479 u
ro	= 675.929 k
Vdsat	= 153.02 m
Cgs	= 2.248 f
Cgd	= 377.28 a
Cgb	= 132.623 a
Cgg	= 2.758 f
Cdb	= 587.367 a
Cdd	= 975.748 a
Csb	= 1.169 f
Css	= 3.125 f

❑ You can get complete sizing given any
2 parameters and (ID or W)

Sizing assistant

The screenshot shows a window titled "Sizing assistant" with a "dark mode" toggle. The window is divided into two main sections: "SA" (Sizing Assistant) and "LUT Visualizer".

SA Section:

- A dropdown menu is set to "NMOS".
- Input fields for parameters: ID (10u), cgg (1.0 f), gm/gds (max), and VDS (600m).
- A yellow "Run" button is located below the input fields.

LUT Visualizer Section:

A list of calculated parameters and their values:

ID	= 10.0 u
L	= 400.0 n
W	= 277.555 n
ID/W	= 36.029
VGS	= 809.246 m
VDS	= 600.0 m
gm/id	= 5.242
V_star	= 381.528 m
ft	= 8.344 G
gm/gds	= 53.912
VA	= 10.285
gm	= 52.414 u
gmb	= 13.692 u
gds	= 972.3 n
ro	= 1.028 M
Vdsat	= 248.771 m
Cgs	= 824.91 a
Cgd	= 132.931 a
Cgb	= 41.962 a
Cgg	= 999.803 a
Cdb	= 206.741 a
Cdd	= 344.462 a
Csb	= 419.107 a
Css	= 1.132 f

❑ You can search for maximum and minimum points

Sizing assistant

Sizing assistant

dark mode

NMOS

ID: 10u

L: 1.0 u

VA: 5

VDS: 600m

Run

SA

LUT Visualizer

ID	=	10.0 u
L	=	1.0 u
W	=	248.535 u
ID/W	=	40.236 m
VGS	=	353.953 m
VDS	=	600.0 m
gm/id	=	24.377
V_star	=	82.046 m
ft	=	39.303 M
gm/gds	=	121.881
VA	=	5.0
gm	=	243.667 u
gmb	=	73.85 u
gds	=	1.999 u
ro	=	500.271 k
Vdsat	=	37.744 m
Cgs	=	427.363 f
Cgd	=	120.607 f
Cgb	=	436.488 f
Cgg	=	984.458 f
Cdb	=	184.624 f
Cdd	=	306.446 f
Csb	=	305.83 f
Css	=	688.709 f

ID	=	10.0 u
L	=	1.0 u
W	=	153.316 n
ID/W	=	65.225
VGS	=	1.219
VDS	=	600.0 m
gm/id	=	2.148
V_star	=	931.152 m
ft	=	2.851 G
gm/gds	=	10.74
VA	=	5.0
gm	=	21.478 u
gmb	=	5.904 u
gds	=	2.0 u
ro	=	499.896 k
Vdsat	=	550.631 m
Cgs	=	1.085 f
Cgd	=	86.888 a
Cgb	=	27.249 a
Cgg	=	1.199 f
Cdb	=	119.243 a
Cdd	=	235.591 a
Csb	=	400.219 a
Css	=	1.318 f

❑ More than one valid point?